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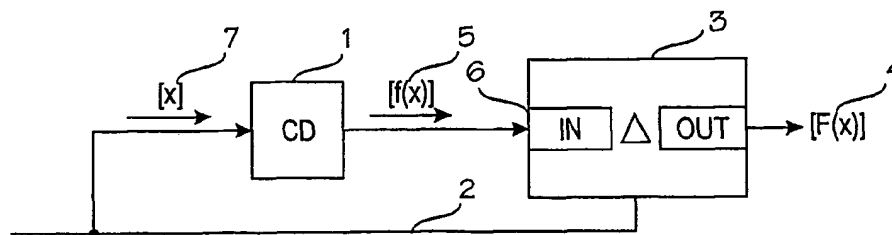
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(54) Title: CONTROL DEVICE OPTIMIZING COMPUTING INPUT SAMPLE OF DATA WITH DISCRETE FOURIER TRANSFORM ALGORITHM



(57) Abstract: An automatic control device (1) that comprises input means (21, 24) for inputting measured values (7) of cyclic voltage and/or current; computing means (21) for computing a parameter based on said values of voltage and/or current, and for comparing the computed parameter against a predefined condition; and initiating means (21, 23) for initiating a control function in response to the parameter meeting the predefined condition. The input means (21, 24) of the control device are arranged to input a predefined number of samples per one cycle; and said computing means (21) are arranged to compute the parameter with a discrete Fourier transform algorithm optimized based on fixed coefficients related to said predefined number of samples per cycle. The control device and the corresponding control method provide a significantly faster response time than the earlier general programmed solutions without increasing the related costs as much as the conventional digital signal processors.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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